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The

Management

REVIEW



SEPTEMBER, 1941

COMMENT • DIGEST • REVIEW

MANAGEMENT'S

No. 1

PRIORITY

PERSONNEL and

Industrial

Relations



Conference

WEDNESDAY AND THURSDAY
OCTOBER 1 and 2
BENJAMIN FRANKLIN HOTEL
PHILADELPHIA • PENNSYLVANIA

AMERICAN MANAGEMENT ASSOCIATION

No. 1 PRIORITY?

YES, because no army march, no navy can sail the seas, no air force fly without the support of the armies of industry. Thus the task of government, management and labor is to develop *good will* within the industrial supply house. Our need now is the kind of efficiency that is *spontaneously* created by the energetic and willing men.

This Conference The AMA will seek in its Personnel Division's Conference in Philadelphia at the Hotel Benjamin Franklin, on October 1 and 2 to show what industry is doing to reach that objective. It will be an opportunity for executives who have been engrossed these past months in their own plant problems to note fundamental trends in labor-management relations; to learn about important *specific* developments in other companies.

Employee Compensation Wage rates have moved steadily upward since the defense program started. The ascendant spiral is well underway. Where will it end? How are such factors as cost of living being used to adjust wages? How are increases being given? How widely are wage rates being affected? What are the best incentives now? These are some of the questions that will be discussed under the broad heading of employee compensation.

Developing the Working Force Labor is scarce—good skilled men hard to come by. But are we making the best use of present skills? Are we using all the facilities and practices that personnel research offers today? Are we properly developing supervisors? Are selection, promotion and transfer methods up to date?

Collective Bargaining The Conference will review in its discussions the important developments in the field of collective bargaining since the defense program got under way. Several questions will be considered as: What are the trends in collective-bargaining agreements? What is the outlook regarding the closed shop? How much is being sacrificed to the exigencies of the defense program?

If you have suggestions concerning these sessions write to AMA today!

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THE subject that is highlighted this month is *waste*. The waste problem is easy to understand but difficult to do anything about—and that's the nub of the situation. It's like blowing your automobile horn in a traffic jam: you know it's no help, but still you blow.

But now, in this era of shortages, priorities and ersatz, the waste problem has become really acute; companies can no longer merely *talk* about preventing waste, they must *act*! And many *are* acting. In the midst of the defense production furor, concerns that are short on raw materials are finding it necessary to redouble their efforts to prevent scrap and are stepping up their salvage operations. Ford Motor Co. (see page 319—\$20,000,000 a Year in By-Products) has paced the country in retrieving from its scrap piles materials that would otherwise serve man no longer. All told, Ford markets over 30 by-products—each one a monument to someone's imagination and initiative. The company's motto is: Avoid waste, but when waste is inevitable turn the wasted material into *useful* products.

A WELL-DESIGNED office is a rare thing, but many executives grow so accustomed to outmoded workplaces that they accept them from sheer familiarity. We've seen offices as dull and dark as the catacombs, but the people working in them say they are quite comfortable. The idea that a poorly designed office interferes with staff efficiency never enters their minds. For a check list of what to think about when reorganizing your office layout, see page 323 (Planning the Modern Office).

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September, 1941

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THE MANAGEMENT INDEX

General Management

Waste—Defense Enemy No. 1

A NATION-WIDE survey of small and medium-sized manufacturers on the question, "What do you think is the greatest single industrial waste which might interfere with the defense program?", has brought 5,479 replies and revealed a wide cross-section of the thinking of small business men throughout the country.

The first answers were generally concerned with waste in the larger sense of the word. Many named 10 different wastes, some 20, and none of the questionnaires states less than five.

"Strikes must be stopped at once!" headed 99.2 per cent of the replies. The solution of 91.2 per cent was to draft labor the same as the soldiers.

All *man-hour waste* should be investigated and stopped at the source. Supervise workers' health, for example, so the extreme loss of man-hours through illness can be cut down.

Duplicating men on a job must stop, say 93.7 per cent. Labor unions put extra helpers on trucks, extra men on engines, etc., in districts where local

rules call for crews of local men.

Inexcusable *waste of manpower* was another answer. Workers should be trained for more than one job and not allowed to obsolesce like machines. Nor should workers worry over their futures: transfer pension monies from one plant to another when a worker changes jobs.

Time-wasting was cited by 64.3 per cent. The time wasted by business men trying to find out something authoritative from the defense agencies in Washington was the subject of a major complaint.

Standardize sizes of ordinary objects in everyday use, answered 70.9 per cent. We make too many sizes of lumber; too many car models; too many yarns; too many kinds of cloth; too many dress patterns; etc. A few standardized items would result in more sales at less cost.

Gather the old junk, answered 80.9 per cent. One large firm gathered better than a million dollars worth of junk last year!

For publishers' addresses or information regarding articles or books, apply to AMA headquarters.

X

The great material waste of things like bottles, tin cans, etc., should be brought to an end. Trash should be segregated, as it is in Germany, and then collected. Waste paper should be placed in one receptacle; tin cans in another; swill, which can be fed livestock, should never be mixed with anything else.

Transportation waste was listed by 81.8 per cent. Better short-haul methods need to be worked out. Take politics out of transportation, suggested 70.3 per cent.

Tax waste was important in the opinion of 94.5 per cent. Duplicating city, county, state and federal offices should be abolished, said 91.2 per cent.

The multiplicity of bureaus in Washington and the buck-passing from department to department has gotten the goat of 89.6 per cent. They complain that no one will take responsibility for

a decision and that just as soon as one man really understands the problem he is transferred to some other division. The Army and Navy won't agree, either, on which orders should be filled first when a plant happens to have orders from both. A coordinated service is needed badly.

How should defense be speeded up? There is but one solution, according to 97.4 per cent of the replies. President Roosevelt should appoint one defense business coordinator to head OPM. This man should have absolute authority. He and a group working under him should be responsible for all defense production. Price control, production for Army and Navy, transportation, oil and electrical products—all should be coordinated by one supreme business head. Duplicating and conflicting orders then would stop. BY RAYMOND W. LYMAN. *Forbes*, August 1, 1941, p. 8:2.

\$20,000,000 a Year in By-Products

ACTING on the assumption that there is a use for everything and that nothing should be wasted has added some \$20,000,000 annually to Ford Motor Co.'s sales and has given the public better automobiles for less money.

But granted that there really is a use for everything, the realistic sales executive will promptly ask, "What about a market for it?"

Well, if there is no adequate existing market for something Ford has to sell,

the company just proceeds to create a market for it.

Take charcoal, for example. Some years ago Mr. Ford found hundreds of tons of scrap hardwood per day piling up at his lumber mills in northern Michigan. The usual method of disposing of such "waste" products was by burning, but Ford doesn't approve of such waste. His engineers decided that this scrap could best be converted into charcoal. But they were then confronted by an even more difficult prob-

lem, since there was at that time a disappearing market for charcoal.

Nothing daunted, they set to work to create a new market for charcoal. And in this they followed the usual Ford procedure. They first developed better methods of producing a better product, then sought a market for it. They produced a form of charcoal that would burn about 40 per cent longer, giving off a dry, penetrating heat without smoke or sparks and producing a minimum of ash. Incidentally, they recaptured about 20 chemicals from the vapors, the value of which is approximately as great as is that of the charcoal itself. They produced by-products from a by-product.

Other research revealed a lack of satisfactory equipment for burning charcoal, so Ford engineers proceeded to design such equipment. To date, they have designed more than 20 different types of charcoal burners.

Ford charcoal is now sold to hundreds of carload buyers, including fuel dealers and big industrial users. It is used by most railroads in dining-car broilers. It is used by both railroads and truckers to protect perishables in transit during cold weather. In fact, Ford charcoal now has more than 100 recognized uses.

Somewhat similar is the story of Ford Portland cement. When Ford erected his own blast furnaces several years ago, there was absolutely no market for blast furnace slag. He was not permitted to throw it in the city dump, so it just piled up—until Ford decided to find a use for it. This he did by developing new methods and

erecting a cement plant at the Rouge factory.

In addition, Ford now sells blast furnace slag for road grading, for railroad ballast, for use in concrete aggregate, and even to rock wool manufacturers for making insulation materials.

To provide fuel for the blast furnaces Ford built coke ovens, which have been increased and improved from time to time. They are charged, on the average, with about 4,000 tons of pulverized coal per day. This yields the following products:

3,000 tons of coke

42,000 gallons of tar

84,000 pounds of ammonium sulphate

12,600 gallons of light oil

50,000,000 cubic feet of gas.

Some of the tar is burned in the Ford open-hearth furnaces; the remainder is sold to refiners of coal-tar products.

The ammonium sulphate is marketed throughout the country as fertilizer.

Light oil is refined, mixed in proper proportions with gasoline, and sold as Ford Benzol to gasoline stations in metropolitan Detroit.

About half of the coke is used in the blast furnaces; the remainder is marketed throughout the Great Lakes region through regular fuel dealers.

The gas is used in the open-hearth furnaces, glass plant, and heat-treating departments.

Most automobile manufacturers and other metal-working industries maintain metal-salvage departments. The different chips, shavings and other scrap are sorted, shipped and sold.

Ford used to do that, too. At one time he had the finest salvage building and one of the largest salvage departments in the country. Sales amounted to as high as \$6,000,000 a year. But Ford felt that there was too much waste in production to suit him. So, instead of being an asset, a large volume of salvage became a liability to those responsible. Now Ford buys scrap instead of selling it.

In the company's Back Stock Department many articles are repaired and reconditioned for further use in the Ford factories. Incidentally, this department is manned largely by "salvaged men"—men who are physically incapacitated in various ways.

Another of the Ford activities that has attracted wide interest is his experiments with soy beans. In his desire to utilize an ever-increasing

amount of farm products and to contribute as much as possible to the prosperity of the farmers, Mr. Ford has found the soy bean adaptable in many ways. The oil is used chiefly in making an enamel used on Ford cars; the flakes are treated and sold as cattle and poultry feed and as fertilizer. They are also used as one of the components of plastics. The wool from the beans is being used in upholstery cloth.

All told, Ford markets over 30 by-products valued at about \$20,000,000 a year. As W. J. Cameron said in one of his radio talks: "The Ford Motor Co. conserves wealth by avoiding waste and converting waste products into useful things. What the company saves, its customers share. By stopping waste, it increases values and reduces prices." *Sales Management*, August 1, 1941, p. 18:3.

Rise of Clerical Work

CLERICAL work was the fastest-growing job field in the United States in the 1930's! Despite depression, unemployment, and a sharp reduction in the growth of our population between 1930 and 1940, clerical occupations grew by 1,700,000 workers—a 44 per cent jump.

There is nothing new about a rapid increase in the number of clerical workers, however. Between 1870 and 1880, and again between 1910 and 1940, clerical work shot ahead faster than any other field. For the whole period between 1870 and 1940, the growth of clerical work was faster than that of any other occupational group except public service.

In 1930 clerical work was the only field except domestic and personal service which employed more women than men. Yet back in 1870 there were only 8,000 women in clerical work, as compared to 300,000 men! In 1930 there were almost 2,000,000 women and fewer than 1,900,000 men. Nearly one woman worker out of five was in clerical work in 1930 as compared to only one male worker out of 20.

The same reasons that led to the growth of clerical work in the past should increase it still further in the future. It seems likely that the clerical field will increase the number of its workers in the semi-skilled, machine-operator class at a rate more rapid than that of the growth of the whole labor market.

—From *American Job Trends* (Science Research Associates)

Experiments in Noise Reduction

INVESTIGATORS have compared work of two groups of weavers, one in a room of average noisiness, the other in a room where noises had been muffled. The workers in the quiet room did 8 per cent better than the others.

In a room occupied by 42 workers, the Western Union Telegraph Company found that noise abatement brought a 42 per cent decrease in errors. Rike-Kumler Company, Dayton, Ohio, department store, obtained a 24 per cent decrease in errors of typists and bookkeepers after an acoustical treatment muffled noise.

In the control room of the Aetna Life Insurance Company, a quieter atmosphere was accompanied by a 29 per cent decrease in typing errors, a 52 per cent decrease in comptometer operators' mistakes. Bell Telephone Laboratories believes that noise which reduces the efficiency of an average worker by 5 per cent decreases the efficiency of an executive's mental output by 30 per cent.

All this on the authority of the National Noise Abatement Council, an organization started by companies whose products muffle or abate office clatter. The council points out that a reduction of 8 per cent in productive efficiency for 2,000,000 workers, each earning \$15 a week, represents an annual cost of more than \$120,000,000.

—Dun's Review 7/41

A Year of Conciliation

ANALYSIS of reports of the Conciliation Service during the 12-month period ended June 30 reveals that, without attracting particular attention, the Service contributed substantial aid to employers and unions in working out their differences. The cumulative record, exclusive of cases referred to other agencies, shows that the Conciliation Service disposed of:

- (1) 1,408 strikes, involving 745,936 workers.
- (2) 1,254 threatened strikes, involving 793,764 workers.
- (3) 23 lockouts, involving 8,085 workers.

In addition to these major issues, the Service handled 2,691 situations of other types and referred 288 cases to other agencies for final disposition.

In only 99 instances was the Conciliation Service unable to effect adjustment of industrial relations problems brought to it. Agreements of some kind were obtained in 3,082 cases, of which 1,208 were signed, 452 were renewals of signed contracts, and 1,059 were either oral agreements or written memoranda of agreement. In 363 cases a written agreement was drawn up to dispose only of particular issues involved in each case.

In 766 of the cases where Commissioners of Conciliation assisted in effecting settlements of disputes, copies of resulting collective-bargaining contracts were forwarded to the Service by the parties. All provide for union recognition and for a definite period of duration, and grievance procedures are specified in 730 of this total. Provision is made for a board of arbitration in 378, while a single arbitrator is called for to settle future disputes in 98.

Open-shop provisions occur in 379 of the contracts, while 187 call for a union shop and 165 specify a closed shop. Strikes and lockouts are forbidden in 412, and vacations are provided for in 389.

As between the major union rivals, A.F.L. unions led C.I.O. unions in number of cases brought to the Service, the respective totals being 2,939 and 1,597.

—Labor Relations Reporter 8/11/41

Office Management

Planning the Modern Office

THE task of reorganizing an office to improve efficiency is not an easy one. Daily contact dulls the critical sense and makes it difficult to acquire an outside viewpoint. Hence the value of an efficiency check list.

The list given here is necessarily general. Since requirements vary, no specific rules for selection or arrangement of equipment and coordination with routine can be formulated.

Traffic

Used in its broadest sense, office traffic means the movement of employees required by their work as well as the flow of correspondence, orders, filing, etc.

Human Traffic: A minimum of 70 square feet of floor space per employee is desirable, and main aisles and cross aisles should be at least 3 feet in width. When floor space is at a premium, one minimum-width aisle for each twin row of desks can be adopted.

In placing desks for individual employees, use of equipment other than desk and chair should be kept in mind. For example, some employees make use of special files—e.g., an employee who purchases printing or office supplies maintains a file of paper samples and type style books. Such material need not be kept with main correspondence files but could more conveniently be housed in desk-high, two-drawer

filing cabinets adjacent to the desks of the employees using it.

Savings in floor space and in reference and filing time can be effected if all other files and filing work are centralized in one section of the office, or, if the quarters are larger, in a special filing room. A practical combination may be devised by using counter-height, three-drawer filing cabinets to centralize filing and at the same time to separate public from private floor areas.

Paper Traffic: A clear picture of every phase of routine can be obtained by following an order or letter from the moment it is received until it is finally dealt with and filed. This simple research can be most revealing. It may disclose, for instance, that mail should be opened earlier in the morning to insure that sufficient work is on hand for each clerk; or tracing of an order may reveal that the billing operation should be more closely allied with scheduling of orders and shipping. By making such a check and effecting needed changes, the office manager adapts the strikingly successful assembly-line system of manufacturing to clerical procedures.

Light and Ventilation

Office space broken up by partitions is difficult to light, to ventilate and to heat. The need for partitions to separate stenographic, accounting and

other departments is debatable. The number of private offices should be kept to a minimum. If departments must be separated, the counter-height filing cabinets referred to previously make excellent partitions and do not obstruct light or ventilation.

A study of the position of desks in relation to windows will show how the desks can be arranged so that light falls unobstructed on the work. If the positions thus indicated do not make best use of floor space, it is advisable to provide artificial light to make up the deficiency. High equipment, such as storage cupboards, four- or five-drawer filing cabinets, or shelving, should be placed so as to permit free passage of light or air.

Equipment

The type of equipment is as important as the manner of arrangement. In the modern flat-top desk, the interior of each drawer is partitioned so that

current supplies, specialized files, etc., are readily accessible and do not clutter the desk top. The modern office chair is adjustable to individual needs and conserves the worker's energy. Instead of permitting forms, letterheads, envelopes and other supplies to be stored in desk drawers where they are frequently soiled and wasted, the up-to-date office provides a central storage cupboard where control and economy can be exercised.

Such office improvements as sound insulation, communication systems, point-of-use fire protection for records, and machine accounting in all its phases are more important in this emergency period than ever before. Like a well-organized, well-equipped factory, the modern office produces more in proportion to work-hours spent than was ever dreamed of in the gas-light era. *Business Management*, July-August, 1941, p. 10:3.

Protection of Vital Records

EVERY business man, except the bootblack or corner newsboy possibly, has vital business records, the loss of which might cripple or destroy his business.

If a business man is starting from scratch to plan adequate record protection, the first question to ask is, "What records must be saved, or what is worth saving?" The daily transaction of business tends to accumulate records of all kinds—some worthless and others priceless.

Not long ago one of the great industries of the country was forced to locate records of former years to defend itself in court. The records were found in a fire-trap of a warehouse, along with bales of other papers which could be burned without loss. The experience gave the organization a cold chill, and subsequently a major job of sorting valuable and worthless records was undertaken. This reduced the accumulation by more than 60 per cent, and the valuable material was placed

where fire could not ordinarily reach it.

After indispensable records have been segregated, it is necessary to consider where they will be kept. If there is a choice of buildings, begin by studying the outside exposures to risks of all kinds. There are numerous instances where structures that were thought to be "fireproof" have been destroyed by fire. A classic case is the Burlington Building fire in Chicago, which was ignited by the intense heat from a burning building 80 feet distant. The word "fireproof" is no longer used by engineers, for it has been demonstrated time and time again that no type of construction can withstand fire altogether.

Consider next the room where the records are to be kept. Even if a vault is to be built to house them, the location of the vault is important. Rooms on lower floors can be penetrated by water. In a good fire-resistant building, almost any room of adequate size above the first floor will make a file room. If floors and ceilings are combustible, consideration must be given to means of making them fire-resisting.

The containers for the records are the next consideration. For indispensable records, insulated cabinets—safes and vaults with accredited fire ratings—are needed for full protection. This type of container is rated to withstand fire for a specific number of hours.

Let us assume now that the vital records have been housed in labeled safes which are in a room that is itself

resistant to fire or flood. Protection does not end at this point. Experience shows that even with the exercise of all means of prevention fires will occur. A careless smoker, an improper electrical connection, an uninsulated flue that was overlooked, may cause a fire.

First-aid fire appliances must be provided in ample number at accessible locations. Some training in the use of this equipment for all employees is advisable.

Fires in offices and file rooms will involve only ordinary combustible materials, for which the soda-acid, foam, loaded stream, anti-freeze, water-type, and vaporizing liquid extinguishers are suitable. Foam or vaporizing liquid extinguishers are recommended for fire in flammable liquids, the latter being recommended also for fire in live electrical equipment.

Record vaults are not often equipped with sprinklers, for the water from them will do as much damage as fire. But sprinklers can be installed over safes and cabinets, and they have an excellent record in general office occupancies.

Fire doors that automatically shut off file rooms, and automatic alarm systems, are other protective devices that should be considered.

With the protective system planned, the final move is to consider fire insurance. Practically any type of risk can be covered by riders attached to the standard contract, or special policies can be written for insurable risks. With adequate protection of records, exposures are reduced to a minimum

and credit will be given accordingly in insurance rates.

The increasing use of microfilm for reproducing vital records is considered a helpful development by fire-protection authorities. Such film can be kept in small safes with high fire ratings or in bank vaults.

There is a growing tendency toward off-premises storage of duplicate records. One large New York department store makes three copies of cer-

tain records, keeping one in the store, another copy in the city but off the premises, and a third copy outside the city. Thus, in the unlikely event that fire should destroy the store, two additional copies will be available, and if by any remote chance the two copies in New York City are destroyed, there still remains the third set of records stored outside the city. BY LEONARD F. MAAR. *Purchasing*, August, 1941, p. 61:2.

Casting Bureau Methods Used in Hiring

USING methods comparable to those of the casting bureaus of the film industry helps materially in the personnel work of the average business house, it is shown by the experience of Frederick and Nelson, Seattle department store.

The central employee visible record card used here not only lists the usual data about an employee, but also the work she is qualified to do in addition to her regular work. This data is highly important, as a work peak frequently occurs in one phase of the business while another is experiencing a seasonal valley. Hiring of additional workers may often be obviated by transferring from another department for the duration of the peak. And, of course, extra-departmental experience and qualifications figure importantly in determining promotions, transfers, etc.

The number and name of the employee, together with a listing of departments (indicated by numbers), appear in the visible portion of the card when in the file, and the knowledge of departmental experience is indicated by marking the number with a red check. When the card is flipped over, the line of additional department numbers is at the top of the card, and the departments in which the employee has had experience duly indicated by the red check.

If additional persons are required for a given department, a glance at the files will indicate experienced people available.

—*American Business* 8/41

AMA OFFICE MANAGEMENT CONFERENCE

The Office Management Conference of the American Management Association will be held on Wednesday and Thursday, October 22-23, at the Hotel Pennsylvania, New York.

Personnel

How to Help the DS Bond Program

BRIEFLY, there are five major ways in which business and industrial establishments may ensure the success of the Defense Savings Bond and Stamp program:

1. Most important method is the payroll allotment or deduction plan which is advocated by the Treasury Department and has already received widespread support from employers and labor leaders. This is a purely voluntary plan whereby the individual employee is given the opportunity to authorize his company to deduct, each payroll period, a stipulated sum to accumulate for the purchase of a Defense Savings Bond, Series E.

A company need not qualify as an issuing agency or receive permission from the Treasury Department. All that is necessary is for the concern to install the plan for those employees who desire to make use of it. Thus the concern merely circularizes its employees to advise them that the plan is available and furnishes them with instruction sheets and authorization blanks. It is advisable that money so deducted be kept in a separate bank account.

It is suggested that employers set up a committee to publicize and handle the mechanics of the payroll allotment plan and that a representative of the employees or of the union be included on the committee to emphasize the cooperative and patriotic nature of

the undertaking. Stress should be placed on the fact that participation in the allotment plan is a matter of voluntary and individual decision. Any employee may, at any time, cancel his authorization and withdraw all money accumulated to his credit, but he may not make partial withdrawals or loans upon the accumulation.

Companies may set a reasonable minimum for any single payroll deduction, and it is strongly urged that deductions be such as to provide for the purchase of the lowest-priced bond (\$18.75, maturity value \$25.00) within a minimum of six months. Since allotments bear no interest, it is to the advantage of the employee to make the allotment time for the purchase of any one bond as brief as possible.

2. In addition to instituting payroll allotment plans, business establishments are also urged to provide for the direct resale of Defense Savings Stamps in order to reach income groups where weekly deductions from salary or payroll might not be possible. The stamps, in all denominations from 10 cents to \$5.00, together with a sufficient quantity of albums, may be purchased at post offices.

3. Many firms have taken the initiative in organizing Defense Savings Clubs among their employees to arouse further interest and participation in the purchase of Defense Savings Bonds.

4. Concerns can greatly aid the en-

tire Defense Savings Program in their communities by inserting Defense Savings Bond and Stamp slogans from time to time in their regular commercial copy. A company which institutes a payroll allotment plan is also urged to announce the fact in one of its advertisements so that the patriotic un-

dertaking may serve as an example to others.

5. Companies may also, of course, purchase on their own account Defense Savings Bonds of Series F and Series G, up to \$50,000 annually.

Boston Business, August, 1941, p. 7:3.

Medical Care Plans for Industry

ABSENTEEISM due to illness is costing industry more than \$60 per employee per year. It is costing the employees more.

On any given day, among every thousand employees, 20 are, productively speaking, non-effective; many more are only partially effective. Strikes in 1940 resulted in a loss of about two hours per worker per year; absenteeism due to illness, which never makes the headlines, resulted in a loss of approximately eight days per worker. The toll of illness has been estimated as 400,000,000 man-days per year. It is the purpose of this article to inquire briefly into the ways of reducing this huge toll and of alleviating the burdens now falling on the employees.

Medical plans serving industrial employees have followed no fixed pattern. They have been organized for different reasons and under different conditions. Illustrative of one type of plan serving industrial employees is that of the American Cast Iron Pipe Company, which provides, through the company medical department, free medical care

including examination of new employees and care of industrial injuries to its 1,100 employees and their dependents. This extensive service is supported by the company at an annual cost of approximately \$19 per person. The program is served by four full-time and 10 part-time physicians (specialists), two dentists, six nurses, and a laboratory technician.

In a second type of arrangement, the employees of the Union Oil Company, through the Employees' Benefit Plan, may receive service from any physician in Los Angeles for diagnosis, treatment and hospitalization up to a value of \$500 for one illness. This service is financed by employee contributions of \$2 a month, with the company contributing the cost of administration.

A third distinct type of service for industrial employees is that rendered by the Milwaukee Medical Center. The Center, staffed by 12 full-time physicians, offers a prepaid service to the community and especially to employee groups. The cost of the Center's diagnostic, therapeutic and preventive ser-

vices is \$1 a month for an individual and \$3 a month for families.

Seventeen plans, all providing care to industrial employees for non-industrial illnesses, have been examined by the authors. Even this small sample illustrates the variety in auspices, services, distribution and organization of such plans. They are under the auspices of management, employees, unions, medical societies, private doctors, cooperatives. The plans are financed by the companies, by the employees, or by both jointly. Benefits vary from cash payments in reimbursement of physicians' or hospital bills to almost complete medical care. These services are performed by groups of full-time physicians, by panels of selected physicians, by a combination of these, or by any licensed physician. Some plans offer services to dependents; others do not.

The objectives of a proper program are threefold: (1) improved health of the working force; (2) security for the employee against the financial hazards of illness; (3) increased efficiency and raised production level.

The objectives can be achieved only by emphasis on health conservation, with the services of physicians readily available to employees. This requires that the financial barriers of the fee-for-service system of payment be removed. Further, if the program is to be effective, benefits must be in service rather than cash; and service must be built upon prevention and conservation instead of upon care only in cases of catastrophic illness. Hospital service

plans alone cannot attain the threefold objectives of a proper program.

Questions of policy arise in determining the method by which service benefits are to be provided, since certain of the alternative methods available, in particular situations, impose varying degrees of compulsion. The extent depends upon the degree to which the selected method requires changes in the medical habits of the employees. Management must weigh in the balance the extent to which the employees' medical habits are disrupted and the advantages of the particular method otherwise indicated as the solution to the planning problem. This question may be minimized by employee development of the plan or participation in it.

There has been considerable discussion among the advocates of the different methods available—free choice, panel, group practice. Management has used all methods. In almost every case such controversy as has arisen over the method selected has quieted.

Should the plan operate as a department of the company, should the company participate jointly with the employees, or should the company support independent action either by the employees through a labor union or otherwise, or by the community? No categorical answer can be given to these questions. Decision must rest upon the circumstances in each case and upon the industrial and community relations policy of each company. Experience has indicated that employee participation, and responsibility commensurate with their contribution to the plan, is

essential to its success. Employees will have a keen awareness of the problems encountered in the operation of the plan, and participation in its management will result in more efficient utili-

zation and administration as well as afford an outlet for latent qualities of leadership. BY KINGSLEY ROBERTS and MARTIN W. BROWN. *Advanced Management*, April-June, 1941, p. 61:5.

Pays Teachers a Bonus

AT American Car & Foundry Company, defense orders have posed the problem of converting relatively "rough" car builders into "fine" tank producers. This problem has been solved by the inauguration of a formal training program right on the production line. The requirement is to train the individual employee to perform a limited operation on a specific part of a machine specially tooled for the particular job. With exercise of a reasonable amount of supervision, the tooling insures a minimum amount of defective work.

The training is achieved by placing the "learner" under the tutelage of an experienced operator. Naturally, the "teacher" must have the necessary temperament and qualifications to instruct by actual demonstration. As an inducement for the instructor to take the fullest interest and qualify the student at the earliest possible date, the teacher is paid an attractive bonus, which varies according to the type of machine and the length of time estimated necessary for qualification. As an incentive to "graduate" the pupil as quickly as possible, the instructor is paid the full bonus, regardless of time actually consumed. Where the pupil has the required intelligence and application, a period of six to eight weeks is sufficient to qualify most of the men.

Obviously, these men do not become all-round machinists in such a short period, but many of them become extremely skilful in their particular operation in a comparatively short time. This is borne out by the fact that 95 per cent of all operations involved in fabricating and assembling tanks and producing armor plate are on a piecework basis. Out of exactly 300 learners who have completed this course to date, only five have failed—which speaks well for both the teachers and the pupils.

This procedure has solved at a minimum cost and effort (to both the employee and employer) the specific problem the company faced, and has enabled the management to better the contract starting dates and daily production on combat tank orders.

—F. A. STEVENSON in *Factory Management and Maintenance* 8/41

AMA SPECIAL INDUSTRIAL RELATIONS CONFERENCE

A Special Industrial Relations Conference of the American Management Association will be held at the Hotel Benjamin Franklin in Philadelphia on Wednesday and Thursday, October 1 and 2.

Production Management

Labor's Role in Time and Motion Study

BEFORE considering a proposal for labor participation in time and motion study, what are some of the "can't be done's"? In the writer's opinion, it is a grave mistake to think of labor's participation in time and motion study merely as a matter of approving or reviewing standards.

Participation in terms of formal acceptance or rejection after the work is done and the standards set is a costly process which is sure to perpetrate injustices. Sitting around a table arguing whether or not a standard is correct is a foolish procedure when only one side has any knowledge of the principles involved. With the best intentions in the world, this form of approving standards is sure to result in unfortunate "horse trading."

Only men who have had considerable time-study training in several plants are able to judge whether or not a standard is fair, and then only when they observe the performance. No one—foreman, manager, union representative—who has not been well trained in rating the performance of operators can make any worthwhile comments regarding the fairness of a time-study standard.

Thus the first specification for practical participation by labor in standard-setting may be stated in this way: *For labor to participate in a constructive way, it must be represented in time and motion study by thoroughly*

trained men actively engaged in the work as members of the standards department.

Participation will be greatly facilitated if two other conditions are present. These have to do with mechanisms.

The first is concerned with the form in which the incentive standard is expressed. *For labor participation in time and motion study to be most satisfactorily conducted, the resulting incentive standards must be expressed in individual time standards.*

The other mechanism has to do with the process of standard-setting. One school of thought uses the direct method. Frequently, one time study is used to determine an individual standard. The method has two inherent faults from the standpoint of this discussion. Each standard established by direct time study reflects the variations in judgment of the time and motion study man. Secondly, each new standard set creates an individual "selling" problem.

Thus the third and last specification may be stated here: *Labor participation in time and motion study will be greatly simplified when recorded standard time data is used for incentive measurement.*

Participation can be made direct by utilizing mechanics as time and motion study men. Using skilled mechanics for this purpose is not only practical but is essential in many plants. In

measuring non-repetitive operations—work involving manufacture to customer specifications, with a large percentage of one-piece orders—the assistance of skilled mechanics may be required. They are needed to help determine beforehand the procedure to be followed in manufacturing the articles on order.

In a number of cases observed by the author, the installation was begun by selecting for training in time and motion study a number of skilled mechanics who had the ability to sell themselves to others. Frequently these mechanics were introduced into time-study work in trades other than their own, to give them a broad viewpoint. The first step was to teach these men how to analyze a job in its elements. As a result, they discovered for the first time the high proportion of lost time in factory operation.

Next, they were taught to rate the performance observed in relation to the definition of a fair day's work. Correct rating is the keystone of any time-study procedure, and labor representatives must be trained to rate correctly before they can be of any real assistance in time and motion study.

As the mechanics became skilled in time study, their observations were used in compiling standard data. Obviously, they had confidence in the data because they had contributed to its formulation. They knew how to apply it to their own trades. Their dual training placed them in the enviable position of having the confidences of both labor and management.

The method outlined offers a most

satisfactory and practical way to establish and introduce time standards. But we still must face the real issue of maintaining consistency between work done and "time allowed." Here the responsibility is divided. *Labor that would participate in time and motion study should assume the responsibility for calling attention to changes in methods which originate with the workers.*

Some workers adopt a constructive attitude toward the mistakes which develop in incentive standards. They call attention to both the loose ones and the tight ones. Others think that when a standard becomes loose they should say nothing.

The worker himself initiates changes in method. He devises better ways for doing the same job with less effort. Some workers are much more ingenious in making improvements than others, and, too, some operations can be changed more easily than others. The result is inconsistent earning possibilities. Here is where labor will have to do a major educational job if it really wants to participate in time and motion study.

Management can help in this effort also by facing the problem squarely. What is needed is a suggestion system that works.

Very few plants seem to have productive suggestion systems. One reason why they may not work is this restriction of information by the worker. On the other hand, the reason for failure may lie more with management for not having perceived the advantage of making suggestion systems function.

Some have not taken time to determine the value of suggestions and have added insult to injury by not paying adequate awards for those which have been valuable.

A reward for suggestions should be proportionate to net savings effected and should be paid promptly. This

responsibility should be assumed by management. Then, when labor assumes its responsibility for the recognition of changes in method, it will be doing a real job toward maintaining consistency of standards. BY PHIL CARROLL, JR. *Advanced Management*, April-June, 1941, p. 75:6.

Subcontracting to Fifty Firms

ALTHOUGH subcontracting has been employed by Gisholt Machine Company (Madison, Wis.) since 1936 and before, it was not until well into 1940 that the technique was extensively practiced.

As its backlog of orders grew with the purchases of customers in the United States and abroad, more and more plant capacity was built and equipped in an effort to keep production abreast of demand. Eventually it became evident that some other way must be found to meet customers' requirements. Tentatively, and with many misgivings, Gisholt farmed out to a big metal-working company some of the easier subassemblies of its small automatic single-spindle lathe, with final assembling and inspection prudently retained in the home plant.

The tryout worked, and management recognized with a sigh of relief that here was a common-sense method for stepping up production capacity much faster than by bricks and mortar. Today between 15 and 20 per cent of Gisholt production is obtained from

outside firms. About 50 subcontractors are at work, employing from 500 men in the largest down to four men in the smallest.

The general aim is to farm out work to companies to which this volume will be really important. If Gisholt orders constitute 50 per cent or more of the subcontractor's business, so much the better. The principal exception made to this rule is in awarding orders to some specialized tool and fixture shops with which the company has long done business, and in which standards of workmanship are just as zealously maintained as in Gisholt's own plant.

The firm has developed a subcontracting staff that does nothing but deal with the problems of farming out. Two men are kept on the road continuously by this department, and four men remain at Madison most of the time. The function of this department consists of inspecting, expediting, finding new subcontractors, and maintaining contact with existing subcontractors. The department places orders accord-

ing to the requirements of the over-all manufacturing schedule—and sometimes according to the expediency of dealing with the subcontractor.

When a road man or a subcontractor reports an emergency need, Madison leaps into action. Perhaps the subcontractor has just reached a stage of the process where he has encountered difficulties and needs advice. Madison tries to give the necessary help by telephone, airmails detail drawings or work orders for his guidance—or sends a road man by the first connecting plane.

Because pirating of capable subcontractors is becoming a more serious threat to prime contractors than is the much-publicized pirating of skilled labor, it is a primary responsibility of Gisholt road men to keep in intimate touch with all the shops on their lists. They must tend their subcontracting relationships as tenderly as a congressman mends his district fences.

Gisholt has found it worthwhile on occasion to redesign its product to suit the equipment available in a subcontractor's shop. This means, of course, that the subcontracting department's field men must be familiar not only with machine-shop practice but also with the design of the company's own products, so that recommendations can be made to utilize a subcontractor by a few well-aimed changes.

The company endeavors to obtain from the subcontractor a firm contract price at which he will supply the unit he is to make. To help him arrive at an estimate, the subcontracting de-

partment furnishes him with samples of the finished article, with blueprints, and with work sheets.

Various expedients are followed in setting prices, however. If the price quoted is extremely high, the subcontractor is told the buyer thinks he can do it cheaper. Some contracts have been placed at the seller's price, with a proviso that he will charge less if it is warranted—and these deals invariably result in reductions as the subcontractor gets the hang of the job.

Some potential suppliers have been afraid to quote prices; the usual practice in such a case is to give the supplier Gisholt's own cost sheets, and then to make an agreement to pay him anywhere from Gisholt cost to Gisholt cost plus 25 per cent, the exact figure to be subsequently set by mutual consent.

Besides the extra cost paid to the subcontractor above the company's own normal shop costs, there are other drawbacks inherent in subcontracting. For one thing, spoilage raises cost. The subcontractor will probably have to reject more work-in-process and finished items than would Gisholt's own shop making the same article. Also, Gisholt will be likely to reject more finished parts after delivery from the subcontractor, or rework them. In recognition of this difficulty, and of the tardy deliveries that may occur through a subcontractor's defection, Gisholt keeps some of its own equipment free to make up at short notice whatever is lacking because of subcontractors' failures to perform. *Factory Management and Maintenance*, August, 1941, p. 79:5.

Statistical Methods for Quality Control

IN initiating statistical methods for quality control in industry, one must carefully consider the economic aims of the process and the ways in which the statistical method may further their attainment. In order to design a quality control procedure, the aims of the procedure must be clearly defined. Some of the contributions which quality control can make to process are:

- (a) Greater uniformity of product
- (b) Larger volume at no increased cost
- (c) Reduction of cost of inspection
- (d) Reduction in wastage
- (e) Detection of trouble
- (f) Avoidance of trouble
- (g) Authentic record of the quality of product.

In the majority of cases, quality control procedures will be concerned with control charts for measures of central tendency and of dispersion. The commonly used measures are the average and standard deviation or the average and the range. The other important structural member of the quality control procedure is the sample size.

Having settled upon the aims of the procedure and its structural framework, one should then fit it to the existing process and personnel so as to alter the *status quo* as little as possible, provided, of course, that one does not sacrifice important fundamental principles.

The transition to statistical methods can be accomplished most expeditiously by careful prior study of the problem and reduction of the quality control procedure to written form. The written form should be clear, concise, and so complete as to require no other adjunct or explanation. It is important that its authority be made manifest beyond question, by having it signed by the management.

Convenience and adaptation to existing circumstances can be furthered by inspecting for those quality characteristics which have previously been subject to inspection, even though some of them may not be of great importance, adding as few new inspections as practicable, and fitting techniques to the limitations of existing personnel. The whole procedure should be reduced to a simple set of functions, steps, and consequent actions, each of which is the clearly defined duty of the incumbent of a designated position—not the duty of a person specified by name since persons change with extra shifts, illnesses, promotions, etc. Even at the expense of tedium and labor, simple language and engineering terms which are familiar to the personnel should be employed and technical statistical terms which confuse them and arouse resentment should be avoided.

Delegate clearly defined and routine duties of the procedure to the respective positions or offices, such as inspector,

foreman or superintendent, thereby marking the fields of authority and responsibility which exist under the procedure. Where a system of decentralized or partly decentralized inspection is employed, the collection of data can well be made a responsibility of the foreman, since men under his control are available on the job for this work. However, the foreman should not be permitted to use the producers of the article for sampling their own work. He should, instead, be required to do the sampling personally, or have one of his assistants do it. The interpretation of the record and general supervision of the postings of a number of foremen are natural functions of the inspector. The location of trouble is, of course, an engineering function, and should be made the responsibility of higher authority such as a superintendent.

Define the sampling procedure as to time, number, and manner of accomplishment. The sampling should be timed so as to be appropriate to the process by prescribing that the sample shall be taken every half hour, every hour, every one-hundredth item, every buggy load, etc. Prescribe the number of articles to be inspected at each inspection interval—by whom, and how. Further, prescribe the exact way in which the records of the inspections shall be kept, who shall keep them, and provide convenient forms for that purpose.

Since a process not previously subject to statistical control requires more

inspection than one which has shown control for some time, provisions should be made for subsequently decreasing the amount of inspection in an economic manner.

Prescribe the action to be taken when points are out of control limits on the record, such as stop the process, hunt for the cause of the trouble, inform the superintendent, etc. In the part of the process which can be made routine, it is advisable to leave nothing to the discretion of the administrator.

Finally, arm the quality control procedure with a thinking clause by providing that any case not covered by routine instructions will be referred to a designated office whose incumbent is capable of keen analysis and logical and responsible action. Without a provision of this character, the strictly routine and regimented procedure would lead to ridiculous results under the stress of some unusual and unforeseen event. However, with such a provision, a quality control procedure can be established which delegates the duties under the process to positions in such a way that the duties are commensurate with the abilities of the incumbents of the positions. This is conducive both to work well done and employee morale. The higher echelons are relieved of the tedium of routine duties, and the work of simple and less exacting character is accomplished by the lower-paid personnel. BY LESLIE E. SIMON. *Journal of the American Statistical Association*, March, 1941, p. 53:8.

Marketing Management

Things to Watch in Hiring Salesmen

TO keep sales managers, branch managers, and division managers from hiring men against their own better judgment—to help prevent men from shutting their eyes to known danger signals—one large company has prepared a check list of danger signals which must be checked against every sales applicant before he is hired.

The list is widely applicable to hiring all kinds of salesmen. The importance of each point will undoubtedly vary from company to company, but as a general rule each signal is well worth considering by sales managers in almost every field.

1. *Former salesmen of competitive organizations—particularly the leading competitors.* Long experience teaches this company that men from other companies in the same field have more to unlearn than learn.

2. *Men on whom a doubtful credit report has been received.* All salesmen applying for jobs with this company are checked by the Retail Credit Company, Hooper-Holmes, or other investigating organizations. Most of the salesmen collect some money, and if they have a bad credit record too high a percentage of them finally "borrow" a small sum to pay some pressing creditor.

3. *Men who have had more than five previous jobs.* Except for vacation jobs, the young man with more than five previous jobs has already established a

habit he may never break—quitting when the first cloud rises on his job horizon.

4. *Men who have left previous jobs because of layoff, force reduced, merger, business slump, job discontinued.* Good men do not usually lose jobs for such reasons. At these times the weaker men are eliminated, and to hire such men is merely to pick up the human material which some other company has discarded.

5. *Men whose wives or immediate families are not 100 per cent behind them in their desire for the job.* For instance, it is better to find out beforehand than later that a man's wife simply can't bear to have her husband away most of the time.

6. *Men who have domestic difficulties—e.g., separated or divorced.* When a man is paying alimony or separation allowances, he frequently has too many worries to permit him to think constructively about his job.

7. *Men about whom there is some question as to physical fitness, or who have been ill several times for a month or more in the last several years.* Get a physical examination on every applicant and follow the doctor's advice.

8. *Men whose salaries, in previous jobs, were more than 50 per cent higher than the new beginning salary.* Most of them will feel they are too good for the job, will complain and feel sorry

for themselves after they have been on the job awhile, even though they were glad to be hired.

9. *Men who have heavy financial responsibilities to their families over ordinary living expenses, or who are in debt.* Men who have too heavy a drain on their earnings are very doubtful assets in a sales department.

10. *Men who have gone to college more than three years, but did not graduate.* The fellow who goes more than three years without graduating often just isn't a "finisher."

11. *Men who have "reformed," whether in regard to financial matters or in habits such as drinking.* Run a sales department, not a reform school.

For certain higher-type sales jobs,

the particular company that developed this list of danger signals avoids hiring men over 27 years old, as well as applicants who were not active on the college campus and applicants whose college grades were below average. The company uses mental tests and eliminates all applicants whose mental alertness scores are below a certain figure. For some jobs, it also avoids men with no life insurance.

For each applicant there is a booklet describing the sales work the man is to do, the requirements of the job, and the role of the salesman's wife. It is required that the wife read the booklet and approve the job before he is hired. *American Business*, August, 1941, p. 21:2.

Loose-Leaf Catalogues

MANY concerns put out their catalogues in loose-leaf form to facilitate keeping them up to date and to prevent the waste of reprinting entire issues. This method has so many advantages that many firms will adopt it as time goes on.

In decreased expense, of course, lies the greatest advantage of loose-leaf systems. Once the binder or cover has been paid for, the fillers are very economical. A single sheet, a four-page folder, or a several-page pamphlet can be added when, as and if there is something new to include or some revision to make.

An advantage of equal significance is the fact that the refills remind customers of the product line at much more frequent intervals than new catalogues.

One defect in this kind of catalogue is that it is not kept up to date by customers or prospects; few of them bother to remove old sheets and insert the replacements. An effective way to correct this is to have the salesmen *deliver* and *insert* the fillers. Result: The customer's office force is relieved of a bothersome job, the purchasing agent is pleased to have his information up to date, and the attention of "higher-ups" is attracted to a source of supply that's on its toes.

Such a system does little short of wonders for the mailing list. Waste circulation is eliminated, duplication avoided, names, titles and addresses corrected—resulting in important savings in postage, printing and clerical expense.

Anything else? Yes; the method gets salesmen an entrée when they might have no other excuse for calling, and it opens the possibility of some talk about new orders. Further, they discover how dust-covered their catalogue may have become—if it isn't lost entirely—and are able to put it back into circulation.

—W. H. CONANT in *Barron's* 4/7/41

Contests Do Sell

NOTHING makes consumers perk up their ears and start coming the manufacturer's way so successfully as a well-conducted contest tailored to fit the product. Remember the Old Gold contest, when you couldn't toss a brick out a window without hitting a contestant?

Consumer contests get in their besticks when a new product is taking its bow or when sales start slipping and need to be yanked back upstairs.

There aren't many kinds of contests, and the ones that have proved successful are beginning to get threadbare. But if you do get an idea for one that's different, hang onto it! Our present principal types, in the order of their simplicity (which is also in the order of their volume of response), are:

1. Naming contests. The contestant submits a name for a baby, a product or a store. Any dumb bunny can think up a name, even if it is nothing but "Joe."

2. Word-writing contests. "I like Schultz's Sauerkraut because . . ." and 25 additional words or less. Because it's prose, it's not so tough either. Few persons will use exactly the same wording, so there are few pitfalls for the sponsor.

3. Limerick contests. The last line should be clever and rhyme properly. It's third in effectiveness because the literary form imposes pretty severe restrictions.

4. Puzzles. If these are very simple, they belong farther up in this list.

They can be in any form—crossword, matching twins, finding concealed pictures, rebuses or what have you. The number of little words that can be made from a big one comes in here, too.

Returns depend on (a) the difficulty of the contest, (b) the popularity of the product, (c) the advertising media employed—radio pulls most heavily, then newspapers, then magazines, (d) the size and nature of *first* prize, (e) number of minor prizes. Extensive advertising and tempting prizes may offset difficulties in (a) or (b).

Because most contests require evidence of a purchase of the sponsor's product, they deal lusty blows at the contestants' habit of buying competitors' brands.

It's impossible to anticipate entries accurately. Pepsodent named a baby awhile back and got double the response anticipated. Even guesses based on past records are usually 30 or 40 per cent off. Therefore, once the type of contest has been selected and the publicity starts, all the sponsor can do is send out acknowledgments of receipt of entries, bemoan the fact that adults aren't any more enthusiastic about \$1,000 than youngsters are about \$5, try to decipher handwriting, find missing addresses—and wait for the mails.

If professional contest handlers are called in, their charge is on a per-thousand basis. If they estimate the number of thousands to be high, that rate

may be lower than if only a few thousand entries are anticipated. These thousands of letters may come into the publication or radio station carrying the advertising, be sent directly to the advertiser—in which case they get mixed in the day's mail and cause a helluva mess—or go to a blind post office box number. The latter's the best bet.

Puzzles are pushovers. They're either right or wrong, so the entrant qualifies or disqualifies immediately.

Naming contests are the most expensive to handle. It's all a sorting and filing job. Each entered name is typed on a 3 x 5 card along with the contestant's name and address. There are very few individual names entered. Often fewer than 10 names make up 60 per cent of the entries!

Scare stories have been spread about the pitfalls of contests and the legal entanglements awaiting him who sticks his neck out so far as to sponsor one. But if the sponsor runs it fairly, he'll not have even moral entanglements. The only laws that appear to apply to contests are those concerning lotteries.

Avoid them and you're safe. And they're avoided if the sponsor goes to the effort and expense necessary to see that a thorough, impartial and complete job of judging is done.

Most advertisers save all entries for six months to a year, in case a protest has to be settled, but one of the world's most consistent contest sponsors saves only the qualifying submissions.

Contests are not to be recommended for products that don't have a wide general consumer interest—at least not the sort of contests discussed here. They've repeatedly made money for cosmetic and breakfast food and juvenile appeal and drug items, but no one would be so rash as to recommend a consumer contest to sell railroad cars. The seasonal appeal also enters into the picture. It should be considered in selecting prizes, advertising media, and deciding on the difficulty of the competition.

They're not easy things to put on, these contests—but sometimes they seem to do miracles for sales.

By A. B. AMBROSE. *Commerce*, August, 1941, p. 19:3.

Defense Savings Incentive Plan

MORE than half the 4,500 employees of General Time Instruments Corporation, New York, and its divisions have signed up for a Defense Savings Bond purchase plan sponsored by the company. Pay rates throughout the corporation were raised. Employees were urged to devote all or part of the increase to purchase of the bonds or stamps.

The corporation agreed, as an incentive to prevent cashing in of the bonds, that it will pay 10 per cent of their cost if held in its custody up to maturity. Participating employees authorize it to deduct amounts up to 7 per cent of their normal earnings. In the event of termination of service, bonds are turned over to the employee.

—*Dun's Review* 7/41

Financial Management

Hedges Against Inflation

INFLATION in the United States is not imminent. The most that I can foresee for the next year is an increase in wholesale prices of 10 to 15 per cent, and in the cost of living of 5 to 10 per cent. I believe inflation is not imminent because the productive capacity of the country is constantly increasing. Furthermore, it is generally being recognized that the huge efforts of rearmament cannot be superimposed on the present existing production of durable consumers' goods. Hence, more and more restrictions will be imposed on the production of such commodities.

Hedging against inflation does not mean profiting from the misery of others; it simply is the protection of one's own assets. The problem of hedging differs with the enterprise, and it is further complicated by the fact that inflation may be temporary or permanent in character. For example, during the last war inflation was temporary in the United States, Great Britain, Holland, Switzerland and the Scandinavian countries. After 1920, prices of commodities declined very sharply, and hence the necessity for hedging against inflation was not so great as in countries where inflation was permanent, as for example in France.

It is not easy to determine at the beginning whether inflation will be permanent or temporary in character.

However, if one takes into consideration the fact that the United States is to a large extent self-sufficient, with a great deal of gold in its possession which can be used for the purchase of commodities all over the world, and that the dislocation of plants will not be so great as in other countries, one can safely reach the conclusion that if inflation in the sense of a sharp rise in commodity prices should develop in the United States it would only be temporary in character.

A manufacturing concern is in a very good position to hedge against inflation. The only thing it has to do is to improve plant and equipment by using the profits obtained during the inflationary period. It is also advantageous to increase the quantity of raw materials needed in the process of production. Where inflation is likely to be permanent, it is desirable to borrow the money for this purpose. Where, however, inflation appears to be only temporary, obviously it would not be advisable to borrow. A manufacturing concern could readily hedge against inflation by utilizing profits for the purpose of increasing research in order to improve its commodity or markets.

The test of whether or not a hedge is successful depends upon whether at the end of the period of inflation the plant and equipment are just as good as they were before inflation set in;

whether the volume of inventories and raw materials, as well as manufactured goods, is as large; and, finally, whether the credit position and the earning powers of the corporation are unimpaired.

The possibilities of hedging for trading concerns are also simple. The only thing a trading concern can do is to increase its inventories. Since inflation means a rise in commodity prices, the larger its inventories the better off the concern is. In cases where inflation is considered as permanent, it is advisable to borrow money to obtain the inventories. Where the inflation is not considered as permanent, experience has shown that the best hedge is to borrow money at the beginning of the inflation period and while prices are still rising to liquidate the inventories and to repay the loan.

The test of whether a mercantile establishment is successful in hedging is whether the quantity and quality of its inventories after the period of inflation is over are as good as prior to the inflation.

How can individuals hedge against inflation? In the past, the holding of gold offered a good hedge, but at present there is no possibility of buying gold in any civilized country.

Next, let us consider the hedge offered by other precious metals and jewelry. During periods of inflation in the past, precious metals and jewelry proved a good hedge. However, I doubt very much the wisdom of such hedging at the present time. At the end of this war, Europe will be much more impoverished than ever before.

Hence the Europeans will not be in a position to buy jewelry, diamonds or precious metals; their chief concern will be to buy foodstuffs and raw materials. This practically leaves the United States as the only market for precious metals and jewelry. Already income taxes in this country are very high, and will be increased further before the emergency is over. High income taxes as a rule hit people who are buyers of jewelry. Hence, under present conditions, precious metals are not a good hedge against inflation.

The purchase of commodities offers the best hedge against inflation, because inflation means a sharp rise in commodity prices in terms of money. Obviously, where an individual has commodities, he has hedged against inflation. The danger in buying commodities, however, is particularly great where inflation is only temporary in character, as was the case in the United States, Great Britain and in a number of other countries. The best hedge through commodities where inflation is considered as temporary is to buy commodities at the beginning, sell them when prices are still rising, and then keep the cash.

A great many people maintain that equities are a good hedge against inflation. Personally, I do not believe this is so. Under present conditions, if an inflationary wave should set in in the United States, the excess profits tax would undoubtedly be increased. A high excess profits tax, as exists for example in England, means that no matter how high commodity prices are or how good business is, corporations

can earn only so much and no more. Hence, through high taxation the government is in a position to prevent earnings of corporations from keeping pace with the increase in prices.

Not all real estate is a hedge against inflation. Business property, however, has proved to be a good inflation hedge. In a period of inflation, rents of business property can be increased, particularly where the leases are not long-term ones.

On the other hand, residential property as such has not proved to be a hedge against inflation. In a period of inflation, rent laws are passed prohibiting an increase in rents. Hence, whereas the rent is frozen, the cost of upkeep rises, and instead of being a hedge, residential real estate proves to be a loss to the holder.

Farm land has provided a good hedge against inflation in Europe, be-

cause land is limited and most of the European countries produce less agricultural products than they consume. Hence, whenever inflation set in, rural land values went up. In the United States there is an over-supply of agricultural land. We have lost our foreign markets for agricultural commodities, and in all probability we shall not regain them. Hence, in my opinion, farm land is no hedge against inflation in the United States.

The best hedge against inflation for individuals is the acquisition of a going concern, be it a manufacturing or a mercantile establishment. There is only one prerequisite, and that is that the man who buys such a concern should be able either to manage it himself or he should have someone whom he can trust to manage it for him. BY MARCUS NADLER. *The Bankers Magazine*, August, 1941, p. 120:4.

German Wage Policy

SOME significant facts on German wage policy in occupied territory were revealed in the March issue of the *International Labour Review*.

In Belgium a law has been passed prohibiting all increases in wages and salaries; providing that piecework rates must be so set that no increase will result in the amount normally earned; and inflicting heavy fines or imprisonment on any employer or agent who breaks this law. The regulation of wages and prices is in the hands of a Commissariat. In Norway, according to the Swedish Confederation of Trade Unions, laws have been passed absolutely prohibiting increases in wages, or cost-of-living rises.

In Poland differential wage rates for German and Polish workers have been introduced in agriculture, for no other reason than (state the German authorities) because "the German worker is accustomed to a higher standard of living than that of Polish workers." In industry, where the Polish and German workers receive the same wages, Polish workers are required to pay an additional tax of 15 to 20 per cent to the German government.

It is clear from this legislation that three trends can be distinguished in German economic policy: The State is taking control of economic life; the general standard of living is degraded; and the German authorities are deliberately planning to convert the nations of occupied Europe into a race of helots.

—Labour Management 6/41

Insurance

Adequate Insurance Protects Credit

NEARLY \$3,200,000,000 was lost in industrial and commercial failures in the United States in the five-year period from 1930 to 1935. Yet it is estimated that adequate insurance protection in the three major lines—fire, casualty and life—could have prevented at least 40 per cent of the loss. Of interest to credit managers is the fact that a substantial portion of this huge loss was sustained by creditors. Lack of customer insurance protection is a weakness which has a direct bearing on the security of the customer's assets, and a corresponding influence on his credit standing.

Two items of insurance information are generally secured by credit grantors—the amount of insurance on merchandise, fixtures and buildings, and the amount of business life insurance payable to the business. But all too little analysis is given to the kind of insurance; whether it is written by sound companies with ability to meet claims; and whether the insured is living up to the terms of the contract. In most cases, some forms of insurance are completely ignored.

Recent developments in the field of insurance have tended toward broader contracts and liberalized coverages. The effect of all these changes, revisions and liberalizations has been the development of adequate and comprehensive coverages which can leave no doubt in the mind of the credit man as to

whether his customer has sufficient protection. Use and occupancy coverage, for example, compensates for operating losses in case of fire, and is especially important during a period of emergency, such as the present, when it may be impossible to re-equip the customer's premises. Credit men must realize that unless the assets of a business are properly secured against major hazards they do not constitute genuine collateral.

It is obvious that all the comparatively recent developments and improvements in coverages can redound very little to the benefit of credit unless the credit man is prepared to take advantage of them. In the case of smaller accounts, averaging \$200 to \$600, their size does not justify too much time or expense in obtaining information. But with the majority of accounts, the use of a simple but comprehensive reporting form supplied to customers will provide the credit manager with information as to the extent of insurance protection. In designing such a form, the firm's own insurance counsel can be of great assistance. It should be comprehensive enough to determine whether the credit applicant has adequate insurance, yet should not call for information which may be only remotely connected with a grant of credit. Even if an account has been active and satisfactory for a long period of years, a re-statement at reasonably frequent

intervals of the coverages carried still remains a necessary safeguard.

Organized credit, represented by credit men's associations, has come to realize the need for this data, and is trying to determine if it is possible to furnish more definite information about insurance in their reports. Another suggestion has been made that local insurance associations be asked to give information which they possess to local credit associations. In some instances, credit associations have added a paragraph on insurance to a questionnaire sent to merchants, inquiring as to the amount of fire, windstorm and explosion insurance carried on merchandise, fixtures and buildings, and liability and property damage insurance carried on premises and automobiles. Life insurance payable to business is also

mentioned, and a space for other insurance carried.

Many methods of obtaining information concerning the customer's insurance coverage are available to the credit manager. But if in some instances information cannot be obtained, he must work through the salesman to convince the customer that adequate coverage means the extension of more liberal credit. As for the right of the credit man to make such inquiries, an "angels fear to tread" attitude is rather outdated. The fact is, the general public, when buying on time, no longer questions the right of the credit grantor to ask certain pertinent questions regarding its financial responsibility. Is it too much to expect that business men should be as reasonable in this matter? *Business Management*, July-August, 1941, p. 14:2.

New Significance of U. & O. Coverage

USE and occupancy insurance has become more essential to business concerns than ever before. For generations prudent business men have carried insurance against loss due to the destruction or damaging of their property by various perils. Only in comparatively recent years, however, have many of them insured against loss due to the interruption to business resulting from such physical damage to their property.

Business interruption losses, with expenses continuing and profits nil, are now to be dreaded. The property loss

resulting from specific insured perils will be paid promptly. But when the insured has received the money, he is far from being back in business on the old footing.

He may not be able promptly to replace his buildings because of scarcity of material. Even with the buildings again intact, he faces a greater danger of not being able to replace equipment, machinery and stock for possibly two or three years. Meanwhile, his organization has become weakened and customers have gone elsewhere.

A limited property loss may mean

a heavy consequential loss. A shoe factory was put out of business for months by a fire which was confined to a small area, in which, however, all the concern's patterns were stored. In some businesses, destruction of a single essential machine might easily, under present conditions, cause a long enough interruption to bring ruin.

Daily the situation grows more serious as new priority orders are issued. Government control of steel distribu-

tion makes the future very uncertain for many industries not engaged in defense. They may exercise the utmost care to prevent fire or other catastrophe, yet a windstorm or a bolt of lightning may so damage their property that business will be obliged to cease—for how long, nobody knows. Safety lies only in pooling interests, through insurance, with others who are more fortunate. *The Journal of Commerce*, August 19, 1941, p. 2:1.

The Management Question Box

Questions and Answers on Management Practice Based on the Inquiries Received by the AMA Research and Information Bureau.

Individual replies are made promptly either by mail or telephone to inquiries received by the Research and Information Bureau. This service is available to executives of concerns holding company memberships. The questions cited here are those which it is believed are of general interest to the membership.

Inter-City Differences in Clerical Salaries

Question: As a result of recent wage increases to factory workers, and consequent pressure from our office employees, we require information on the basic salary rates of representative companies. We should also like to know how salaries of clerical workers vary between cities.

Answer: Accurate salary surveys are inherently difficult because of the incomparability of jobs in different companies. However, a national survey has been completed by the National Office Management Association in which standard job descriptions were formulated and an unusual and, in the main, successful effort was made to include only comparable jobs in the group covered. It was, of course, necessary to restrict the survey to the simpler, more standardized jobs, but for these we believe the figures will prove helpful, although

they are subject to the additional limitation that they have been averaged mathematically for each job and that the number of companies covered is small.

The survey embraced 17 standard clerical jobs listed separately for 24 cities. Separate figures are cited for male and female workers. The salary rates shown were in effect from March to May, 1941.

The first job on the list, that of senior stenographer, is defined as that of taking varied and rapid dictation of any degree of difficulty and transcribing from shorthand notes. The average monthly salary for women on this job varies as follows (the items are arranged from maximum to minimum): Pittsburgh, \$144; New York, \$132; Chicago, \$130; Buffalo, \$126; Rochester, \$124; Dallas, \$123; Salt Lake City, \$122; Kansas City, \$119; Cleveland and Minneapolis, \$118; Knoxville and Akron, \$116; Richmond, \$113; Hartford and New Haven, \$112; Philadelphia and Des Moines, \$111; Bridgeport, \$110; Boston, \$109; St. Louis, \$104; Syracuse, \$95; New Orleans, \$78.

This order is by no means consistent on all the jobs. For example, the New York average is higher than that of Pittsburgh on 10 of the other jobs listed and very much higher on certain jobs. The monthly average for female senior typist is \$106 in New York and \$80 in Pittsburgh, and that for female telephone operator-receptionist, \$118 in New York and \$84 in Pittsburgh. Similar shifts in relationship occur throughout the data. If the cities were ranked on each job, the order of every list would differ essentially, though the largest cities would quite naturally top most of the lists. An interesting comparison is that of the rates for female receptionists: Akron leads with \$125 monthly, Bridgeport is next with \$115, and New York is rather far down the list at \$95.

Trends in Personnel Practices: 1930-1940

Question: We are reviewing our personnel program and should like to know the numerical trends in the use of specific procedures—e.g., job analysis, psychological tests for selection, physical examinations, etc.

Answer: Such a study of trends was made recently in connection with a revision of the Scott-Clothier-Mathewson text, *Personnel Management*.^{*} In preparing the second edition of the book in 1930, Mr. Mathewson conducted a survey of personnel procedures, and in 1940 a survey was undertaken on the same basis for the third edition. Similar questionnaires were used in both cases, though the 1940 study required additions to cover such new

^{*} McGraw-Hill Book Company, Inc., New York, 1941.

developments as Social Security; the same companies were included insofar as this was feasible. The 1940 results are based on replies from 231 concerns in 47 different industries, employing nearly two million workers located in 25 states. The 1930 survey covered 195 companies and over two million workers.

On the whole, there are few striking increases or declines in specific practices. One of the major changes is an increase in the use of job analysis: 39 per cent of the respondents used job analysis in 1930, and the figure has now jumped to 75 per cent. This gain is in agreement with the widespread interest evidenced in the subject by published articles and conference discussions. Job analysis and rating has been a major topic in the personnel field for several years.

Another much-discussed subject of late has been the use of psychological tests in the selection of employees. Here, however, there seems to have been more talk than action, for the figures in this survey reveal an increase from 17 per cent in 1930 to only 26 per cent in 1940 for other than clerical tests. In the use of clerical tests there has been a more noticeable increase—from 46 per cent of the respondents in 1930 to 62 per cent in 1940. The use of trade tests has declined from 27 per cent to 21 per cent among the companies surveyed.

The investigation disclosed various significant trends in employment procedures. An interesting development is the increase (from 32 per cent to 66 per cent) in the number of concerns that give the personnel department full authority in hiring the rank and file. Other noteworthy changes include a rise from 64 to 75 per cent in the number of companies using medical examinations in selection, an increase from 63 to 83 per cent in those giving the new employee a personal introduction to the department where he is to work, and an increase from 89 to 99 per cent in the companies using an application blank. The only noticeable decrease in these procedures was in the number of companies requiring written references—from 82 to 49 per cent.

In the field of benefit plans, group life insurance and accident insurance reveal the greatest growth—from 55 per cent to 79 per cent and from 49 to 87 per cent, respectively. Health insurance has increased from 42 to 50 per cent, but private pension plans only from 45 to 47 per cent. The various organized forms of insurance are apparently supplanting the mutual benefit association, as this is now found in only 47 per cent of the companies surveyed as contrasted with 60 per cent in 1930.

The extent of use of various wage-payment plans is a subject on which little information has been hitherto available. The 1940 survey figures on these plans are therefore of considerable interest. By far the most commonly

used plan is payment of straight time to direct labor; this was reported to be in use in 75 per cent of the companies covered. Since in the 1930 survey this method was used by 69 per cent of the respondents, it would appear to have predominated for a considerable period. During the decade covered in this comparison, the prevalence of straight piece rates has declined from 50 per cent to 35 per cent. Use of piece rates with a guaranteed minimum, however, is now found in 39 per cent of these companies, as contrasted with 21 per cent in 1930.

Note on Payroll Deductions

One of the contributors to the report on payroll deductions, which was summarized in "The Management Question Box" last month, has taken us to task for implying that there is general agreement deductions should not be made for outside items. Particular regret is expressed by our correspondent that community fund campaigns were included in this category. This individual's letter expresses a viewpoint we feel should be recognized. It follows:

"The trouble with so many companies is that they present the situation tactlessly to their people, with the result that contributions seem compulsory instead of voluntary. Our organization has made payroll deductions, when authorized by the employees, ever since the Fund was established, and I feel sure there has been no feeling of compulsion or resentment.

"It is impossible to obtain as effective support when there are no payroll deductions. I have tried it both ways, and where there is one community drive of this kind it can be handled without resentment or too much difficulty for the Timekeeping Office.

"I am greatly concerned over the future of our local charities, because the days of the big philanthropist are gone. Corporations must meet so many other expenses, including heavy taxation, that the possibility of an increase in their contributions is slight. Unless we broaden the base of contributions, so that everyone gives as a duty in accordance with his income, all our charities will end up under the Government."

Statistics on the policies of a large, representative group of companies indicate that a number of others are influenced by similar considerations and do permit payroll deductions for Community Chest contributions if authorized by employees. In the 1940 Survey of Personnel Practices by the National Industrial Conference Board, 124 of 458 reporting companies observed this policy for their salaried employees and 88 out of 423 reporting companies observed it for wage earners.

Most concerns are sympathetic to community fund drives and try to assist them in various ways, the survey shows. Only 32 out of 458 companies do not cooperate in any manner to promote community drives among their salaried employees, and 55 out of 423 do not conduct such promotion among wage earners. Of the former group, 34 make a company contribution; in the latter group, 68 make such a contribution in lieu of soliciting their workers. Forms of promotion include conducting a drive and soliciting employees; furnishing employee solicitors; display of posters and distribution of literature; collection of employee contributions; distribution of pledge cards; mass meetings on company time; and appeals in employee magazines.

One company has solved the problem by a plan that has been widely publicized. This is McCormick & Company, of Baltimore, whose employees make their contribution by working on two consecutive Saturday mornings, the pay for which goes to the community fund.

Workweek Rearrangement Solves Overtime Problem

BY starting the workweek on Thursday afternoon instead of Monday morning, one establishment was able to compute overtime hours worked during the peak periods of Friday and Saturday and to give employees time off in compliance with the 40-hour week law.

With peak periods falling on Friday, Saturday and Monday, the Whitefish Bay (Wisconsin) National Bank found it impossible to know in advance how much overtime would be required of each employee or to have hours off during the same week in which overtime hours were worked. By beginning the week officially on Thursday afternoon at 4 o'clock, it was possible to compute the overtime hours worked during the peak period and to give employees time off on Tuesday and Wednesday, thus keeping within the 40-hour week schedule.

—*Business Ideas for Increasing Profits* (Prentice-Hall, Inc.) 8/15/41

2,200,000 Wage Increases

IN the three months ending June 15, a total of 2,200,000 workers in manufacturing industries received wage increases—and about 700,000 of them got their raises between May 15 and June 15, according to a report of the Secretary of Labor.

The Secretary's statistics also revealed: (1) that hourly earnings in manufacturing industries averaged 73.8 cents in June, an increase of 1.8 per cent over May and 10.6 per cent over June, 1940; (2) that the average weekly earnings were \$31.34 in June, an increase of 3.1 per cent over May and 23.3 per cent over June, 1940. The difference between the percentage figures for the hourly and weekly rates is explained by the fact that workers in defense industries have been working longer workweeks than formerly and are consequently receiving more overtime pay.

—*Business Week* 8/23/41

Survey of Books for Executives

The Management Counsel Profession. By Joel Dean. Indiana University, Bloomington, Ind., 1940. 89 pages. 75 cents.

This pioneer study provides information concerning the management counsel profession that is urgently needed by executives in deciding whether they should use business consultants. Most business men lack the requisite knowledge for reaching sound decisions in this matter, and Mr. Dean's monograph fills a long-felt need.

The author has combined a systematic analysis of the viewpoint and the problems of the consultant with a study of the experiences and opinions of the chief executives of 75 corporations, representing a variety of industries in seven midwestern cities. Because of the amorphous and highly personalized character of the profession, the methods employed in the investigation were necessarily informal and most of the material had to be gathered first hand. Nevertheless, the sample appears to be fairly balanced with respect to size and character of city, type of industry, and size of company.

Executives are confronted with several questions of major importance concerning the use of consultants and

the value that consultants may have for their particular firms. Some of the questions that arise are: What is the nature and scope of this new profession? Under what circumstances should a consultant be called in? How can an executive best assure the success of a consulting engagement? And last,—What benefits can be expected?

Mr. Dean has provided sound and helpful answers to these and related questions. In his opening chapter he discusses the economic background of the management counsel profession, the types of agencies involved, the different kinds of corporations and businesses that hire consultants, and the various sorts of service performed. Each of the three remaining questions posited above is dealt with in a separate chapter.

Training Workers and Supervisors. By Charles Reitell. Ronald Press Company, New York, 1941. 182 pages. \$1.50.

The tremendous expansion in the working forces of industry has presented a serious problem in the induction and training of new employees with the least amount of delay and cost. Many of them have to be trained on occupations with which they have

had little previous experience. This is nonetheless true in the cases of many of the men who recently have been appointed supervisors. Management's problem is to train these men quickly so that they too may prove effective in their new line of work.

Within the space of relatively few pages, Mr. Reitell has set down many of the principles of supervisory and employee training. He has emphasized the part the foreman can and must play in maintaining and improving cost, time and quality standards. He stresses basic principles of doing this instead of singling out any one specific method.

The chapters on selection are carefully planned so that the reader may clearly perceive the essentials of a workable system. Sound methods have been encouraged throughout. The importance of the interview as the initial contact between candidate and company has been stressed. Job requirements, the application form, and testing have been considered in the light of their importance to the final interview.

A very general treatment has been given to actual training programs as such, the author again setting forth certain principles of the learning process.

The section of the book on human relations contains numerous ideas that the reader will want to consider more fully and possibly re-read from time to time. Many of the ideas have been only partially developed because of the limited space and the great number to be covered. However, they are

nonetheless important and might well form the basis for further discussion within training groups.

The book is stimulating because it clearly outlines the fundamental training needs which industry must satisfy to improve its manufacturing processes and its human relations. Dr. Reitell properly has confined himself to essentials. He has set down basic principles, leaving it to those who encounter the specific problems to elaborate the details to meet individual requirements.

Reviewed by Howard C. Madsen, Industrial Relations, Westinghouse Electric & Manufacturing Company.

Scientific Price Management I.

By Allen W. Rucker. The Eddy-Rucker-Nickels Company, Cambridge, Mass., 1940. 29 pp. plus charts. \$5.00.

For those who have pricing decisions to make—executives, sales managers, retail-store buyers, production managers, auditors, etc., this new handbook by Allen W. Rucker is a unique aid.

Fifteen different types of price problems, taken from actual case studies by the author's firm of management counsel, give the user of the manual virtually a complete guide to everyday problems in pricing. The case studies range from simple price cuts to problems involving advertising allowances, freights allowances, and sales bonuses; in addition, problems embracing added production required of factory em-

employees to justify step-up differential piece-rates, added retail-store sales needed to warrant promotion of lower-priced lines, and increased volume necessary to justify "deals" and merchandise premiums.

As the author points out, few know how to compute the added volume needed to compensate for price discounts or added direct costs. The volume requirements vary both with (a) the percent of price discount or cost increase and (b) with the original gross margin of profit. Mr. Rucker developed a decade ago the price-volume compensation formulae for computing such volume increases; now, in "Scientific Price Management I," he performs a notable service in providing the means to determine volume increases under every possible condition without any computation whatever.

That is accomplished by six Calculator Charts incorporated in the manual. To find, for instance, the added volume necessary to justify a price discount of 25 cents per pair by a shoe manufacturer, one simply consults a Calculator Chart and reads off the answer (without computation) according to his individual margin percentage and percentage price-discount. To find the added volume needed to offset a 5 per cent advertising allowance or a "deal" with one case free with six, or to offset increased social security taxes or sales bonuses, one simply looks up the answer on a Calculator Chart.

"Scientific Price Management I" is not so much a book as it is a working

manual for executives. It is recommended for every executive who must make decisions relative to prices or costs.

Traffic Management. By G. Lloyd Wilson. D. Appleton-Century Company, Inc., New York, 1941. Revised edition. 453 pages. \$3.50.

This authoritative work, a standard volume in the field of industrial and commercial traffic management, has now been revised and brought up to date. Particular attention has been paid in the new edition to changes in the law and in freight claims.

The book outlines the nature and scope of the traffic manager's functions, describes each part of his work in full detail, and discusses the organization and administration of the traffic department. Among the specific subjects discussed are: the role of the traffic department in modern industry; the management of shipping; receiving freight; plant transportation management; local motor-transport management; routing shipments; tracing freight movements; expediting freight; freight claims; types of industrial and commercial traffic departments; traffic service bureaus; etc.

The author writes from long experience as traffic manager and teacher of the subject, and he has covered the entire field in such a practical manner that the book should prove invaluable to students of traffic and transportation, traffic managers, and shippers and receivers of goods.

Briefer Book Notes

LABOUR SUPPLY AND NATIONAL DEFENCE. International Labor Office, Washington, D. C., 1941. 245 pages. \$1.00. An analysis of the problems of labor supply raised by the rapid execution of vast programs of national defense. Part I presents separate discussions of the problems of allocation of manpower, control of employment, vocational adaptation of labor supply, and mobilization of labor resources; these are followed by monographic notes describing the measures which various countries have adopted. Part II is devoted to problems of information and organization.

PROFITABLE PUBLICITY. By Henry F. Woods, Jr. Dorset House, Inc., New York, 1941. 208 pages. \$2.50. This book is designed to provide a thorough knowledge of the factors essential to effective and successful work in publicity. Prepared along intensely practical lines, it describes the technique and methods of publicity and cites concrete examples of different types of publicity. For business men who desire to publicize their organizations but cannot avail themselves of the services of trained publicity assistance, this volume offers valuable guidance.

BETTER FOREMANSHIP. By Glenn Gardiner. McGraw-Hill Book Company, Inc., New York, 1941. Second edition. 336 pages. \$2.50. In a practical question-and-answer treatment, this book outlines effective management methods for foremen. The subject matter has been chosen to give the foreman help both with fundamental functions and practices of foremanship, and with the many new questions and problems that have resulted from recent changes in working conditions, labor relations, and industrial methods. This edition has been revised particularly to cover the new responsibilities facing foremen under defense production.

CONSUMERS' COOPERATIVES IN THE NORTH CENTRAL STATES. By L. C. Kercher, V. W. Kebker and W. C. Leland, Jr. The University of Minnesota Press, Minneapolis, 1941. 431 pages. \$3.50. An extensive study of cooperatives in the region which has had the longest history of successful consumer cooperation. Of special note are the discussions of types of cooperatives, the analyses of basic community factors involved in successful cooperation, suggested solutions for problems of organization and management, etc. Case histories of the three leading wholesales and of 15 local societies are included.

ENGINEERING ENCYCLOPEDIA. Edited by Franklin D. Jones. The Industrial Press, New York, 1941. Two volumes. 1,431 pages. \$8.00. A condensed encyclopedia and mechanical dictionary for engineers, mechanics, technical schools, industrial plants, etc. Gives the most essential facts about 4,500 important engineering subjects.

INFORMATIVE SELLING. By Roger Wolcott. National Consumer-Retailer Council, Inc., New York, 1941. 88 pages. \$1.00. This guide outlines a plan for an "informative selling" program for department and specialty stores. Among the topics covered are: collection of quality and use information; the application of quality and use information; organization of a Customer Advisory Committee; publicizing an informative selling program. The plan represents a composite of programs in successful operation in a number of stores throughout the country.

THE PRINCIPLES AND METHODS OF DISCUSSION. By James H. McBurney and Kenneth G. Hance. Harper & Brothers, New York, 1939. 452 pages. \$2.50. This book presents the working principles and the methods of discussion in terms of a democratic philosophy. Various types of discussion are covered: group discussion, the panel, the dialogue, the symposium, the forum-lecture and the forum. Essentially a college text, the book nevertheless may prove helpful to business men desirous of developing proficiency in discussion.

COLOR: HOW TO USE IT. By Sterling B. McDonald. Follett Book Company, Chicago, 1940. 166 pages. \$12.50. A manual designed to aid industrial colorists in achieving harmonious color combinations. It outlines a practical method of predetermined color balance and control.

BOOKS RECEIVED

GENERAL

Business Administration in a Changing Economy: *Proceedings of the Third Annual Conference of the Academy of Management.* Edited by C. L. Jamison. University of Michigan Press, Ann Arbor, Mich., 1939. 37 pages. \$1.00.

What Will Inflation and Devaluation Mean to You? By Donald G. Ferguson, Bion H. Francis, E. C. Harwood *et al.* American Institute for Economic Research, Cambridge, Mass., 1940. 144 pages. \$1.00.

Business Organization and Management. By Elmore Petersen and E. Grosvenor Plowman. Richard D. Irwin, Inc., Chicago, 1941. 691 pages. \$4.00.

The U. S. Patent System. By John A. Dienner. American Society for Metals, Cleveland, 1940. 73 pages. \$1.00.

Industrial Research Laboratories of the United States, Including Consulting Research Laboratories. National Research Council, Washington, D. C., 1940. Seventh edition. 372 pages. \$3.50.

OFFICE MANAGEMENT

Developing Better Telephone Technique Among Employees. Policyholders Service Bureau, Metropolitan Life Insurance Company, New York. 16 pages. Gratis.

Law Office Management. By Dwight G. McCarty. Prentice-Hall, Inc., New York, 1940. Revised edition. 561 pages. \$5.00.

A Practical Handbook for Secretaries. By Beatrice Wilson and Louise Denny. Charles Scribner's Sons, New York, 1941. 287 pages. \$1.90.

FINANCE

Auditing Theory and Practice. By Robert H. Montgomery. The Ronald Press Company, New York, 1940. Sixth edition. 692 pages. \$6.00.

What's a Good Investment?: *A Simple Guide Book.* By G. V. Roussille. Barron's Publishing Co., Inc., New York, 1940. 98 pages. \$1.00.

Principles of Corporate Finance. By Milo Kimball. Longmans, Green and Co., Inc., New York, 1939. 306 pages. \$1.50.

The Bankruptcy Act and General Orders and Forms in Bankruptcy. Edited and compiled by J. F. Gillis. Pandick Press, Inc., New York, 1939. 456 pages. \$4.00.

Bank Management Control. By E. S. Woolley. George S. May Company, New York, 1940. 152 pages. \$5.00.

Principles of Accounting: *Introductory.* By H. A. Finney. Prentice-Hall, Inc., New York, 1940. Revised edition. 639 pages. \$5.00.

Taxation and Fiscal Policy. By Mabel Newcomer. Columbia University Press, New York, 1940. 89 pages. \$1.25.

Accounting Requirements of the Securities and Exchange Commission for the Preparation of Financial Statements. By B. Bernard Greidinger. The Ronald Press Company, New York, 1939. 563 pages. \$6.00.

Investment Banking Under the Securities and Exchange Commission. By T. Kenneth Haven. University of Michigan Press, Ann Arbor, Mich., 1940. 157 pages. \$1.00.

Auditing Committee of the Board of Directors. Policyholders Service Bureau, Metropolitan Life Insurance Company, New York. 17 pages. Gratis.

PERSONNEL

Cooperative Part-Time Retail Training Programs: *Supervision, Coordination, and Teaching.* By Kenneth B. Haas. Office of Education, United States Department of the Interior, 1939. For sale by the Superintendent of Documents, Washington, D. C. 96 pages. 15 cents.

Economic Factors Affecting Industrial Relations Policy in National Defense. By Sumner H. Slichter. Industrial Relations Counselors, Incorporated, New York, 1941. 112 pages. \$1.50.

Employment Stabilization: How to Stabilize Employment for Payroll Tax Savings. Prentice-Hall, Inc., New York, 1941. 71 pages. \$1.00.

ECONOMICS

Economic Problems of National Defense: A Symposium. By M. L. Anshen, S. E. Braden *et al.* Indiana University, Bloomington, Ind., 1941. 214 pages. \$1.00.

Monopolistic Competition and General Equilibrium Theory. By Robert Triffin. Harvard University Press, Cambridge, Mass., 1940. 197 pages. \$2.50.

The Incidence of Income Taxes. By Duncan Black. The Macmillan Company, New York, 1939. 316 pages. \$3.40.

Business-Cycle Theory in the United States, 1860-1900. By Paul Barnett. The University of Chicago Press, Chicago, 1941. 129 pages. \$1.00.

UNEMPLOYMENT COMPENSATION

The Federal Role in Unemployment Compensation Administration: A Report Prepared for the Committee on Social Security. By Raymond C. Atkinson. Social Science Research Council, Washington, D. C., 1941. 192 pages. \$2.00.

The Case for Experience Rating in Unemployment Compensation and a Proposed Method. By Herman Feldman and Donald M. Smith. Industrial Relations Counselors, Inc., New York, 1939. 66 pages. \$1.00.

The Case Against Experience Rating in Unemployment Compensation. By Richard A. Lester and Charles V. Kidd. Industrial Relations Counselors, Inc., New York, 1939. 60 pages. \$1.00.

MARKETING

Informative Labeling. By Roger Wolcott. National Consumer-Retailer Council, Inc., New York, 1941. 24 pages. 25 cents.

How To Be a Top-Flight Salesman. By George B. Spencer. D. Appleton-Century Company, New York, 1940. 176 pages. \$1.75.

Market Research Sources, 1940: A Guide to Information on Domestic Marketing. Prepared by Rachel Bretherton. Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, 1940. For sale by the Superintendent of Documents, Washington, D. C. 236 pages. 25 cents.

Forecasting Sales. Policyholders Service Bureau, Metropolitan Life Insurance Company, New York. 57 pages. Gratis.

State Price Control Legislation. Prepared by The Marketing Laws Survey, Works Progress Administration, 1940. For sale by the Superintendent of Documents, Washington, D. C. 558 pages. \$1.25.

The Elements of Marketing. By Paul D. Converse and Harvey W. Huegy. Prentice-Hall, Inc., New York, 1940. Second revised edition. 914 pages. \$5.00.

Simplified Sales Promotion for Retailers. By Edward Kaylin and Alan A. Wells. National Retail Dry Goods Association, New York, 1940. 176 pages. \$2.50.

Sales Finance Companies and Their Credit Practices. By Wilbur C. Plummer and Ralph A. Young. National Bureau of Economic Research, New York, 1940. 298 pages. \$3.00.

Making Consumer Education Effective: Proceedings of the Second National Conference on Consumer Education. Institute for Consumer Education. Stephens College, Columbia, Missouri, 1940. 253 pages.

How to Get a Job and Win Success in Advertising. By Walter A. Lowen and Lillian E. Watson. Prentice-Hall, Inc., New York, 1941. 382 pages. \$3.00.